

AF
ZWW

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of

AXEL SCHULTE

Serial No.: 09/601,280

Filed: July 31, 2000

For: FLOOR CARPET INSTALLING SYSTEM :

: Patent

:
: Group Art Unit: 1771

:
: Examiner: JUSKA, Cheryl Ann

RESUBMISSION OF RESPONSE

Mail Stop After Final
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

Since no communication has been received from the U.S. Patent and Trademark Office in connection with the Response filed on December 16, 2004, which filing is evidenced by the attached copy of the stamped postcard receipt, such Response is resubmitted herewith. The Response submitted a new translation with the fee of \$130.00. Prompt and favorable action is requested.

Respectfully submitted,

Dated: Mar. 18, 2005

Mark S. Bicks
Mark S. Bicks
Reg. No. 28,770

Roylance, Abrams, Berdo & Goodman, L.L.P.
1300 19th Street, N.W.
Suite 600
Washington, DC 20036
(202)659-9076



Due Date 2-10-2005 Today's Date 12-16-04
USSN/USP 09/601,280 RAB&G FILE NO. 40098 BY: MSB, JLA
In Re AXEL SCHULTE
For FLOOR CARPET INSTALLING SYSTEM

The following was received in the U.S. Patent & Trademark Office on the date stamped hereon:

- ☒ Check for \$ 130.00
☐ Specification _____ pgs. _____ claims
☐ Combined Decl., Petition & Power
☐ Assignment
☐ Drawings _____ Sheets ☐ Formal ☐ Informal
☐ Small Entity Statement
☐ Claim for Priority & ☐ Document
☐ Information Disclosure Statement
☐ Trademark Application & _____ Specimens
☐ Rule 53(b) Appln. ☐ Rule 53(d) Appln. (SPA)



- ☐ Amendment ☒ Response to Dec. 10, 2004 Decision on Petition
☐ Notice of Appeal
☐ Brief ☐ Req. Oral Hearing
☐ Issue Fee Transmittal
☐ Trademark Renewal Application
☐ Decl. of Use ☐ 8 ☐ 15
☐ Petition to Extend _____ mos./days
☐ Completion of Application
☒ Translation of Int'l. Appl.
☒ 8 Annexes
☐ Due Date Not Related To Response

x copy of Postcard Receipt and
6pg.-9claim Spec. Filed on
7-31-00



ANCE, ABRAMS, BERDO & GOODMAN, L.L.P.
40098-1 12/15/2004

Bartels - Late Submission of Translation - \$130.00

76575
130.00

Check #/Date

76575

12/15/2004

Commissioner of Patents & Trademarks

\$130.00

JA



IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re Application of:

AXEL SCHULTE

Serial No.: **09/601,280**

Filed: **July 31, 2000**

For: **FLOOR CARPET INSTALLING
SYSTEM**

: **PATENT**
:
: **Attention: PCT Legal Office**
: **Leonard Smith**
: **PCT Legal Examiner**
:
:
:
:
:

RESPONSE

Mail Stop PCT
Commissioner for Patents
Office of PCT Legal Administrator
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

In response to the December 10, 2004 Decision on Petition in connection with the above-identified application, submitted herewith are new translations of the International application and the annexes to the International Preliminary Examination Report.

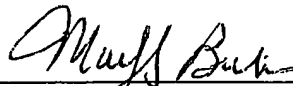
Also submitted herewith is a check in the amount of \$130.00 for the processing fee for late filing of the enclosed English translation of the International application per 37 C.F.R. § 1.492(f).

The Commissioner is hereby authorized to charge any additional fees or to credit any overpayment in connection with this matter to deposit account 18-2220.

To clarify the record, submitted herewith is a post card receipt noting a specification with 6 pages and 9 claims attached to a copy of that 6 page-9 claim specification as filed on July 31, 2000.

Prompt and favorable action is solicited.

Respectfully Submitted,



Mark S. Bicks
Reg. No. 28,770

Roylance, Abrams, Berdo & Goodman, L.L.P.
1300 19th Street, N.W., Suite 600
Washington, D.C. 20036-1649
(202) 659-9076

Dated: Dec. 16, 2004



INTERNATIONAL TRANSLATION CENTER, INC.

DECLARATION OF TRANSLATOR

I, Lawrence B. Hanlon, of the International Translation Center, Inc., do hereby avow and declare that I am conversant with the English and German languages and am a competent translator of German into English. I declare further that to the best of my knowledge and belief the following is a true and correct translation prepared and reviewed by me of the document in the German language attached hereto.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of any patent issued thereon.


Lawrence B. Hanlon

Date: 12/16/04

PATENT COOPERATION TREATY

PCT

INTERNATIONAL PRELIMINARY EXAMINATION REPORT

(PCT Article 36 and Rule 70)

Applicant's or agent's file reference 48rdb/128513	FOR FURTHER ACTION See Notification of Transmittal of International Preliminary Report (Form PCT/IPEA/416)	
International application No. PCT/EP98/06930	International filing date (<i>day/month/year</i>) 02/11/1998	Priority date (<i>day/month/year</i>) 22/09/1998
International Patent Classification (IPC) or national classification and IPC A47G27/04		
Applicant GOTTLIB BINDER GMBH & CO. et al.		

<p>1. This international preliminary examination report has been prepared by this International Preliminary Examining Authority and is transmitted to the applicant according to Article 36.</p> <p>2. This REPORT consists of a total of <u>5</u> sheets, including this cover sheet. <input checked="" type="checkbox"/> This report is also accompanied by ANNEXES, i.e., sheets of the description, claims and/or drawings which have been amended and are the basis for this report and/or sheets containing rectifications made before this Authority (see Rule 70.16 and Section 607 of the Administrative Instructions under the PCT). These annexes consist of a total of <u>7</u> sheets.</p>
<p>3. This report contains indications relating to the following items:</p> <p>I <input checked="" type="checkbox"/> Basis of the report</p> <p>II <input checked="" type="checkbox"/> Priority</p> <p>III <input type="checkbox"/> Non-establishment of opinion with regard to novelty, inventive step or industrial applicability</p> <p>IV <input type="checkbox"/> Lack of unity of invention</p> <p>V <input checked="" type="checkbox"/> Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</p> <p>VI <input type="checkbox"/> Certain documents cited</p> <p>VII <input type="checkbox"/> Certain defects in the international application</p> <p>VIII <input type="checkbox"/> Certain observations on the international application</p>

Date of submission of the demand 08/07/1999	Date of completion of this report 03/03/00
Name and mailing address of the IPEA European Patent Office, P.S., 8615 Patentlaan 2, NL-2280 HV Rijswijk - The Netherlands Tel.: +31 70 340 - 3040, Tx: 31 651 epo nl Facsimile No.: +31 70 340 - 3016	Authorized officer Beugeling, G.L.H. [Seal: EPO] Tel.: + 31 70 340 3284

Form PCT/IPEA/409 (Cover Sheet) (January 1994)

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International Application No. PCT/EP98/06930

I. Basis of the Report

1. This opinion has been established on the basis of *(replacement sheets which have been furnished to the receiving Office in response to an invitation under Article 14 are referred to in this opinion as "originally filed" and are not enclosed as they do not contain any amendments)*:

Description, pages:

6,7	as originally filed			
1-5	received on	27/11/1999	with letter of	25/11/1999

Patent claims, No.:

1-9	received on	27/11/1999	with letter of	25/11/1999
-----	-------------	------------	----------------	------------

Drawings, sheets:

1/2,2/2	as originally filed
---------	---------------------

2. The amendments have resulted in the cancellation of:

☐ the description, pages:

☒ the claims, Nos.: 10

☐ the drawings, sheet:

3. ☐ This report has been established as if (some of) the amendments had not been made, since they have been considered to go beyond the disclosure as filed, as indicated in the Supplemental Box (Rule (70.2(c))).

4. Any additional comments:

II. Priority

1. ☐ This report has been established as if no priority documents had been claimed due to the failure to furnish within the prescribed time limit the requested:
- ☐ copy of the earlier application whose priority has been claimed.
 - ☐ translation of the earlier application whole priority has been claimed.
2. ☒ This report has been established as if no priority had been claimed due to the fact that the priority

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT**

International Application No. PCT/EP98/06930

claim has been found invalid.

Thus for the purposes of this report, the international filing date indicated above is considered to be the relevant date.

3. Additional observations, if necessary:

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step and industrial applicability; citations and explanations supporting such statement

1. Statement

Novelty (N)	Yes; No.;	Claims: Claims	1-9
Inventive step (IS)	Yes; No.;	Claims Claims:	1-9
Industrial applicability (IA)	Yes; No.;	Claims: Claims	1-9

2. Citations and explanations
see attached Supplemental Sheet

**INTERNATIONAL PRELIMINARY
EXAMINATION REPORT – SUPPLEMENTARY SHEET**

International Application No. PCT/EP98/06930

Regarding Item V:

V. Reasoned statement under Article 35(2) with regard to novelty, inventive step and industrial applicability; citations and explanations supporting such statement.

1. Reference is made to the following documents:

D1: FR 2 282 999 A,
D2: DE 195 32 685 A.

- 2.1. D1, which is regarded as the proximate state of the art, discloses (compare page 4, line 4, claim 4, and FIG. 4) a carpet installation system with a carpet (16), which forms the usable surface with its pile side, a non-looped material cemented with the floor surface (page 4, lines 20, 21: "matière textile" or "tapis") and an anchoring means (FIG. 4), which has interlocking elements (12), which project on both sides and which on the one hand interlock with the reverse side (15) of the carpet (16), which is formed on the non-looped material and which faces away from the pile side and on the other hand with the material (page 4, line 4) as the anchoring means there being an adhesive fastener element (FIG. 4), with interlocking elements (12) configured in the form of stalks (12), from which the subject matter of claim 1 differs in that the adhesive fastener element (FIG. 4) is a microfastener element, the stalks (12) are provided with end-side thickened areas, and the interlocking elements (12) on both sides of the adhesive fastener element (FIG. 4) have different shapes and/or dimensions and/or mutual distances.

The features of the preamble that the material, which is attached to the floor surface and the material which forms the reverse side (15) of the carpet (16) are a non-looped material and that the material which is attached to the floor surface is cemented to the floor surface, apply as implicitly disclosed.

Accordingly, the subject matter of claim 1 is novel (PCT Article 33(2)).

- 2.2 Although a microfastener element with stalks, which are thickened on the end-sides, has already been used for interlocking with a non-looped material in a carpet installation system, compare in this regard D2, particularly column 2, line 55, the prior art gives no indications at all to making the interlocking elements (12) on the two sides of the adhesive fastener element with different shapes and/or dimensions and/or mutual distances from one another, to achieve, for example, varied adhesion on the one hand between the anchoring means and the material which is cemented to the floor surface and on the other hand between the anchoring means and the carpet.

The floor carpet installation system of claim 1 is thus based on inventive activity (PCT Article 33(3)).

3. Claims 2 to 9 are dependent on claim 1 and thus likewise fulfill the requirements of the PCT with reference to novelty and inventive activity.

Gottlieb Binder GmbH & Co., 71088 Holzgerlingen

Floor Carpet Installing System

The invention relates to a floor carpet installing system with a carpet which forms the usable surface with its front side, a non-looped material which is cemented to the floor surface, and an anchoring means which has projecting interlocking elements on both sides and which on the one hand interlock with the reverse side of the carpet which is formed from non-looped material and which faces away from the pile side and on the other hand with the non-looped material on the floor surface.

A carpet installation system of this type is already known from document FR 2 282 999 A. In the known system there are strips which are aligned as anchoring means to the carpet edges and which have projecting interlocking elements on both sides in the form of bristles which are inclined toward the plane of the carpet, these bristles being inclined respectively on one side and the other side in directions opposite one another. This opposite inclination of the bristles upon interlocking with the non-looped reverse side of the carpet and the non-looped material attached to the floor is intended to prevent displacement along the plane of the carpet. But it has been found that this type of anchoring does not ensure a reliable enough bond. In this way, during use the formation of bubbles and ripples can occur, in particular under higher stresses, for example by moving heavy pieces of furniture, there is the danger of major damage.

AMENDED SHEET
IPEA/EP

The object of the invention is to devise a carpet installation system which is accordingly characterized by improved characteristics of use.

In a carpet installation system of the type mentioned in the foregoing, this object is attained as claimed in the invention in that the anchoring means is a microfastener element with interlocking elements in the form of stalks with end-side thickened areas, and that the interlocking elements on the two sides of the adhesive fastener element have different shapes and/or dimension and/or mutual distances from one another.

The anchoring as claimed in the invention by means of double-sided microfastener with an adhesive fastener element, which has interlocking elements located on both sides in the form of stalks with end-side thickened areas, which interlock on each side with non-looped material, results in several advantages. On the one hand, this type of interlocking yields an especially reliable connection with regard to relative movements along the plane of the carpet. On the other hand, because the adhesive fastener element is not cemented directly to the floor surface, but interlocks with the likewise non-looped material which is attached to the floor surface, the danger is avoided that shrinkage or ripples, which occur when the floor surface ages or sets, could lead to detachment of the anchoring, because the non-looped material which is on the floor surface forms a compensation layer with a certain compliance. In addition, this layer which is attached to the floor surface also acts to dampen the noise of walking.

Another advantage is that by choosing the dimensions, the geometry and/or the choice of the number of interlocking elements per unit of area, the interlocking action on the two sides of the adhesive fastener element can be appropriately selected. Thus, for example, the adhesive action on the bottom side of the adhesive fastener element which faces the floor surface can be selected to be stronger than the adhesive action relative to the non-looped material on the reverse side of the carpet. When the carpet is lifted, which is possible in interlocking with the non-looped material on the reverse side of the carpet by overcoming the adhesive force, the adhesive fastener

element in this case remains interlocked to the floor-side non-looped material so that after the carpet is lifted re-installation is possible without additional measures.

For the installation system as claimed in the invention a microfastener element is suited which is configured similarly to the element known from DE 196 46 318 A1, but differs from it in that the corresponding interlocking elements are molded not only on the front side, but also on the reverse side of the backing.

Depending on the product base of the carpet which is to be installed, i.e., depending on the structure of the reverse side, a microfastener can be used with the thickness of the backing of the interlocking elements from 0.1 to 0.5 mm and with 20 to 600 interlocking elements per cm² on each side.

The thickened areas of the stalks of the interlocking elements can have the shape of mushroom heads or plate-shaped heads, the heads on their top side preferably being provided with concave recesses. A process for especially simple production of microfastener elements with these interlocking elements in a one-sided arrangement is proposed in German Patent Application 198 28 856.5.

When using interlocking elements which have recesses on the top side of the heads, the recesses of the heads can be provided with an adhesive which effects additional bonding to the reverse side of the carpet and/or the floor-side material, for example by spread coating.

Textile materials in the form of felts and nonwovens as well as loose leno or smooth knit fabrics and non-woven textiles (nonwoven materials) can be provided as the reverse side of the carpet and as the non-looped material which is cemented to the floor.

The invention will be described in greater detail below with the aid of the drawings in which:

- FIG. 1 shows a schematically simplified and broken away section of the components of the floor carpet installation system as claimed in the invention;
- FIG. 2 shows a perspective, highly enlarged view of a double-sided microfastener element, a single interlocking element being shown even more enlarged and cutaway, and
- FIG. 3 shows a broken-away top view drawn in approximately natural size of the non-looped reverse side of the carpet from FIG. 1.

FIG. 1 shows in an enlarged simplified schematic a section of a carpet with pile elements 1 of the conventional type, which extend up from a connecting layer 3 and which form the pile side of the carpet which is used as the usable surface. The reverse side 5 facing away from the pile side is formed by a non-looped material. Materials can be used for this purpose, which impart to the carpet structure a specific stiffness, directional stability and cut resistance. For this purpose, they can be felts or nonwovens which acquire their mechanical coherence by tufting processes and are cemented to the connecting layer 3 of the carpet. Loose leno or smooth right/left knits and other so-called nonwoven materials are also suitable for this purpose.

FIG. 2 shows a section of a strip of a microfastener element 7 similar to the one shown in DE 196 46 318 A1. The thermoplastic (for example, polyolefins or blends of polyamides are possible) strip formed in the gap between an upper and a lower forming tool forms a film-like backing 9 with stalks 11 which project from its top side and bottom side. The stalks 11, which project from the top side of the backing 9 and which have thickened ends which

C l a i m s

1. Floor carpet installing system with a carpet which forms the usable surface with its pile side (1), non-looped material (21), which is cemented to the floor surface (25), and an anchoring means (7) which has projecting interlocking elements (11) on both sides and which on the one hand interlock with the reverse side (5) of the carpet which is formed from non-looped material and which faces away from the pile side (1) and on the other hand with the non-looped material (21) on the floor surface (25), characterized in that the anchoring means is a microfastener element (7) with interlocking elements made in the form of stalks (11) with end-side thickened areas (13), and in that the interlocking elements (11, 13) on the two sides of the adhesive fastener element (7) have different shapes and/or dimension and/or mutual distances from one another.
2. The carpet installation system as claimed in claim 1, wherein the thickened areas of the stalks (11) of the interlocking elements have the shape of mushroom heads or plate-shaped heads (13).
3. The carpet installation system as claimed in claim 2, wherein the heads (13) which form the thickened areas are provided on their top side with concave depressions (15).
4. The carpet installation system as claimed in claim 3, wherein the depressions (15) of the heads (13) on at least one side of the adhesive fastener element (7) are provided with an adhesive (17) which effects an additional bond to the reverse side (5) of the carpet and/or the material (21) on the floor surface (25).

5. The carpet installation system as claimed in claim 4, wherein there is an acrylate-based adhesive (17).
6. The carpet installation system as claimed in one of claims 1 to 5, wherein felts or nonwovens are provided as the non-looped textile material (5, 21).
7. The carpet installation system as claimed in one of claims 1 to 5, wherein loose leno or smooth knit fabrics are provided as non-looped textile material (5, 21).
8. The carpet installation system as claimed in one of claims 1 to 5, wherein the non-woven textiles such as stitch-bonded materials, needled felt, or tufting are provided as non-looped textile material (5, 21).
9. The carpet installation system as claimed in one of claims 6 to 8, wherein at least the non-looped material (21) provided on the floor surface (25) has properties of damping the noise of walking.

424 Rec'd PCT/PTO

31 JUL 2000

Due Date March 22, 2001

Today's Date

July 31, 2000

USSN/USP

RAB&G FILE NO. 40098

BY: MSB / CAC

In Re

AXEL Schulte

09/601280

For

Floor Carpet Installing System

The following was received in the U.S. Patent & Trademark Office on the date stamped hereon:

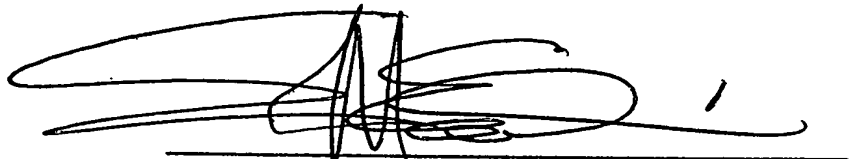
- ☒ Check for \$ 880 -
- ☒ Specification 6 pgs. 9 claims
- ☒ Combined Decl., Petition & Power
- ☒ Assignment
- ☒ Drawings 2 Sheets ☐ Formal ☐ Informal
- ☐ Small Entity Statement
- ☐ Claim for Priority & ☐ Document
- ☒ Information Disclosure Statement
- ☐ Trademark Application & Specimens
- ☐ Rule 53(b) Appln. ☐ Rule 53(d) Appln. (CPA)

- ☒ Amendment ☐ Response
- ☐ Notice of Appeal
- ☐ Brief ☐ Req. Oral Hearing
- ☐ Issue Fee Transmittal
- ☐ Trademark Renewal Application
- ☐ Decl. of Use ☐ 8 ☐ 15
- ☐ Petition to Extend mos./days
- ☐ Completion of Application
- ☐
- ☐
- ☐ Due Date Not Related To Response

CERTIFICATION OF TRANSLATION

I, Susan M. Eakins, of Alexandria, Virginia, do hereby certify that I am an experienced and professional translator of German into English and that the attached English language translation of the German language patent specification titled BODENTEPPICH-VERLEGESYSTEM, by inventor Hn. Schulte, to Gottlieb Binder GmbH & Co., is a true and correct translation of the German language document taken in its sense as an entirety attached thereto.

I do hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of any United States Trademark or Patent Application pertinent thereto.



Susan M. Eakins

Date: May 13, 2000

Floor Carpet Installation System

The invention relates to a floor carpet installation system comprising a carpet forming the usable surface with its front side and an anchoring means that can be fixed to the floor, the anchoring means having upwardly protuberant interlocking elements which come into interlocking engagement with the backside of the carpet opposite the nap side.

A floor carpet installation system of this type is already known from EP 0 321 978 B1. With the known system the backside of the carpet incorporates loop elements protruding out over the make-up of the material, with which come into engagement hooks found on the anchoring means which can be fastened to the floor.

This type of anchoring of the carpet to the floor incorporates inadequacies. As has been shown, the cooperation of the hooks and the free loops found on the carpet backside prevent a lifting of the carpet, but this type of anchoring still does not provide sufficiently secure connection for the prevention of sliding along the carpet plane. Thus during use it can lead to formation of buckling and displacements, and especially with higher stresses, for example with sliding of heavy pieces of furniture, there exists the danger of great damage.

The object of the invention is to disclose a floor carpet installation system which guarantees a comparatively improved anchoring between carpet and floor.

With a floor carpet installation system of the aforementioned type this object according to the invention is attained in that the backside of the carpet turned toward the anchoring means is formed by a loopless material and that a micro-adhesive closing with anchoring elements in the

form of fingers with thicknesses at their ends is provided as anchoring means, wherein the thicknesses at the ends of the fingers interlock with the loopless backside of the carpet.

The cooperation of a micro-adhesive closing having anchoring elements in the form of fingers with thicknesses at their ends with a loopless carpet backside leads to an especially rigid connection when considered in terms of the relative movements along the carpet plane, but also, with overcoming of the holding force, facilitates a lifting of the carpet without tearing of the anchoring means or of their interlocking elements, which under certain conditions represents an additional advantage, for example because following the execution of an intended lifting, a re-anchoring is possible without further procedures. In view of the fact that longitudinal sliding is definitely prevented, no danger exists of bulges or displacements occurring, even with stronger stresses.

A micro-adhesive closing which is particularly suitable for the system according to the invention is known from DE 196 46 318 A1. According to the make-up of the material of the carpet to be installed, in other words according to the structure of the backside, a micro-adhesive closing with a thickness of the carrier of the interlocking elements of 0.1 to 0.5 mm and with 20 to 600 interlocking elements per cm^2 can be used.

The thicknesses of the fingers of the interlocking elements can have the shape of mushroom heads or plate-shaped heads, whereby the heads are preferably provided on their tops with concave depressions. A method for particularly simple manufacture of micro-adhesive closings with such interlocking elements is suggested in German patent application 198 28 856.5.

With use of interlocking elements having depressions on the tops of their heads, the depressions on the heads can be provided with an adhesive allowing for an additional connection with the

backside of the carpet, for example by scraping the adhesive on the heads.

Textile materials in the form of felts or fleeces, or else loose breaker fabric or smooth stitches, as well as non-woven textiles, can be provided as backside of the carpet.

Hereinafter the invention is to be described in greater detail relative to the drawing. Therein can be found :

- Fig. 1 a diagrammatically simplified and broken open cross section of a floor carpet with open nap and loopless backside;
- Fig. 2 a perspective, greatly enlarged view of a microplast-adhesive closing part, whereby one individual interlocking element is represented still larger and in cross section;
- Fig. 3 a view corresponding to that of Fig. 2, whereby depressions on the tops of the heads of the interlocking elements are provided with adhesive, and
- Fig. 4 a broken open plan view in almost natural size of the loopless backside of the carpet of Fig. 1.

Fig. 1 shows in enlarged, diagrammatic simplified representation a cross section through a floor carpet with nap elements 1 of the traditional type, which extend upward from a connection layer 3 and which form the nap side of the carpet, serving as the usable surface. The backside 5 opposite the nap side is formed of a loopless material. For this purpose materials can be considered which lend the carpet structure a certain rigidity, directional alignment stability and tear resistance. In this case felt or fleece can be used, which obtain their mechanical composition by the tufting method and are glued with the connection layer 3 of the carpet. Loose breaker fabric or smooth right/left stitches and other so-called non-woven materials are also suitable for this purpose.

Fig. 2 shows a section of a strip of a microplast-adhesive closing 7 as it is disclosed in DE 196 46 318 A1. The thermoplastic (for example polyolefines or blends of polyamides come into consideration) strip formed in the gap between a pressure tool and a shaping tool forms a foil-like carrier 9 with fingers 11 protruding from its top. According to the mechanical construction and quality of the structure of backside 5 of the relevant carpet, the arrangement of fingers 11 has a packing density of approximately 20 to 600 fingers 11 per cm^2 , with a thickness of carrier 9 of approximately 0.1 to 0.5 mm. Other packing densities and/or thicknesses of carrier 9 can of course be considered according to the special circumstances.

As can be recognized particularly from the sectional representation shown greatly enlarged in Fig. 2, the thickened heads 13 of fingers 11 are formed into mushroom- or plate-shapes with concave arcuate tops, so that within the edge of each head 13 is found a depression 15.

With the example shown in Fig. 3 the depression 15 of head 13 is filled with an adhesive 17. This can be applied by spreading on or scraping on, in order to produce an additional connection following the interlocking engagement with backside 5 of the relevant carpet. Adhesives on acrylate base can be considered as adhesive material, for example 2-ethyl hexyl acrylate or butyl acrylate, preferably in different selected mixture ratios, in order to vary the plasticizing, plasticity and adhesive power as desired and as required.

With wall-to-wall installation of carpets, adhesive closings 7 can be provided in the form of long strips or bands. With installation of the carpet in tile-like or flagstone-like form, shorter, strip sections adapted in a suitable manner to the individual tile parts can be provided.

Patent Claims

1. Floor carpet installation system with a carpet having its nap side (1) forming the usable surface and an anchoring means (7) which can be fastened to the floor, which anchoring means has upwardly protruding interlocking elements (9), which come into interlocking engagement with the backside (5) of the carpet opposite the nap side (1), characterized in that the backside (5) of the carpet turned toward the anchoring means is formed by a loopless material and that a micro-adhesive closing (7) with interlocking elements in the form of fingers (11) with thicknesses (13) at their ends is provided as anchoring means, which interlock with the loopless backside (5) of the carpet.
2. Floor carpet installation system as in Claim 1, characterized in that the thicknesses of the fingers (11) of the interlocking elements have the shape of mushroom heads or plate-like heads (13).
3. Floor carpet installation system as in Claim 2, characterized in that the thicknesses forming heads (13) are provided with concave depressions (15) on their tops.
4. Floor carpet installation system as in Claim 3, characterized in that the depressions (15) of the heads (13) are provided with an adhesive (17) causing an additional connection with the backside of the carpet.
5. Floor carpet installation system as in Claim 4, characterized in that an adhesive (17) on acrylate base is provided.
6. Floor carpet installation system as in one of the Claims 1 to 5, characterized in that felt or fleece are provided as the loopless textile material of the backside (5) of the carpet.
7. Floor carpet installation system as in one of the Claims 1 to 5, characterized in that loose breaker fabric or smooth stitches are provided as loopless textile material of the backside (5) of the carpet.